

Material Safety Data Sheet

Pyrogallol, 99%

ACC# 96458

Section 1 - Chemical Product and Company Identification

MSDS Name: Pyrogallol, 99%

Catalog Numbers: AC164560000, AC164561000, AC164565000

Synonyms: 1,2,3-Benzenetriol; 1,2,3-Trihydroxybenzene; Pyrogallic acid.

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
87-66-1	Pyrogallol	99	201-762-9

Hazard Symbols: XN

Risk Phrases: 20/21/22

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white crystalline powder. Causes eye and skin irritation. May cause liver and kidney damage. **Warning!** Light sensitive. Air sensitive. May be harmful if swallowed, inhaled, or absorbed through the skin. May cause blood abnormalities. Possible risks of irreversible effects. Causes respiratory tract irritation.

Target Organs: Blood, kidneys, liver, respiratory system, skin.

Potential Health Effects

Eye: Causes moderate eye irritation.

Skin: Causes severe skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May be harmful if absorbed through the skin. Contact with skin may cause discoloration and eczema.

Ingestion: Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed. Rapidly absorbed from the gastrointestinal tract. Ingestion may cause weakness, muscular incoordination, fine tremors, loss of reflexes, convulsions and possible death from circulatory collapse.

Inhalation: May cause methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), convulsions, tachycardia, dyspnea (labored breathing), and death. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. May be harmful if inhaled. May be absorbed through the lungs.

Chronic: May cause liver and kidney damage. Absorption into the body leads to the formation of methemoglobin which in sufficient concentrations causes cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood). Repeated exposure may cause sensitization dermatitis. May cause reproductive and fetal effects. Laboratory experiments have resulted in mutagenic effects. Pyrogallol has a tremendous affinity for oxygen of the blood and may cause death by respiratory failure.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician: Persons with pre-existing skin disorders or eye problems, or impaired liver, kidney, or respiratory function may be more susceptible to the effects of this substance. Absorption of this product into the body may cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood). Moderate degrees of cyanosis need to be treated only by supportive measures: bed rest and oxygen inhalation. For methemoglobinemia, administer oxygen alone or with Methylene Blue depending on the methemoglobin concentration in the blood.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use extinguishing media most appropriate for the surrounding fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: Not applicable.
Autoignition Temperature: Not applicable.
Explosion Limits, Lower:Not available.
Upper: Not available.
NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. Place under an inert atmosphere.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Minimize dust generation and accumulation. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Store protected from light. Handle under an inert atmosphere. Store protected from air.
Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Do not expose to air. Absorbs oxygen from the air and will darken upon exposure. Store protected from light. Store under an inert atmosphere.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Pyrogallol	none listed	none listed	none listed

OSHA Vacated PELs: Pyrogallol: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder

Appearance: white

Odor: odorless

pH: Not available.

Vapor Pressure: 100 mm Hg @ 167.7C

Vapor Density: 4.4

Evaporation Rate:Not available.

Viscosity: Not available.

Boiling Point: 309 deg C

Freezing/Melting Point:133 - 134 deg C

Decomposition Temperature:309 deg C

Solubility: Soluble.

Specific Gravity/Density:1.453

Molecular Formula:C6H3(OH)3

Molecular Weight:126.0402

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. May discolor on exposure to air. Air sensitive. Light sensitive.

Conditions to Avoid: Light, dust generation, exposure to air, excess heat.

Incompatibilities with Other Materials: Oxidizing agents, bases, acid chlorides, potassium permanganate, acid anhydrides, alkalis, iron salts, antipyrine, iodine, air, camphor, menthol, ammonium hydroxide.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 87-66-1: UX2800000

LD50/LC50:

CAS# 87-66-1:
 Draize test, rabbit, eye: 20 mg/24H Moderate;
 Draize test, rabbit, skin: 2 mg/24H Severe;
 Oral, mouse: LD50 = 300 mg/kg;
 Oral, mouse: LD50 = 570 mg/kg;
 Oral, rabbit: LD50 = 1600 mg/kg;
 Oral, rabbit: LD50 = 1600 mg/kg;
 Oral, rat: LD50 = 790 mg/kg;

Carcinogenicity:

CAS# 87-66-1: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: Subcutaneous, rat:TDLo = 3950 mg/kg/58W-I (Tumorigenic - equ ivalocal tumorigenic agent by RTECS criteria - Tumorigenic - tumors at site of application).

Teratogenicity: Oral, rat: TDLo = 3 gm/kg (female 6-15 day(s) after conception) Effects on Embryo or Fetus - fetotoxicity (except death, e.g., stunted fetus)

Reproductive Effects: Oral, rat: TDLo = 3 gm/kg (female 6-15 day(s) after conception) Fertility - post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants).; Subcutaneous, rat: TDLo = 5 mg/kg (female 1 day(s) pre-mating) Maternal Effects - ovaries, fallopian tubes.

Neurotoxicity: No information available.

Mutagenicity: Micronucleus Test: Intraperitoneal, mouse = 252 mg/kg.; Micronucleus Test: Oral, mouse = 504 mg/kg.; Cytogenetic Analysis: Intraperitoneal, mouse = 100 umol/kg.; Sister Chromatid Exchange: Hamster, Lung = 25 umol/L.; Cytogenetic Analysis: Hamster, Ovary = 100 mg/L.

Other Studies: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Fish: Goldfish: LC50 = 18 mg/L; 48 Hr; UnspecifiedWater flea Daphnia: EC50 = 54 mg/L; 24 Hr; Unspecified Estimated Koc value = 3.2. This value indicates that pyrogallol will show very high soil mobility and will not adsorb to sediment or particulate matter in water. Volatilization from moist or dry soils and water sources is not expected. Estimated BCF value = 0.37. This value suggests that bioconcentration of pyrogallol in aquatic organisms should be low.

Environmental: Pyrogallol exists primarily in that vapor phase in the ambient atmosphere and will be degraded by the reaction with photochemically-produced hydroxyl radicals with a half-life of 1.9 hours.

Physical: No information available.

Other: Harmful to aquatic life in very low concentrations.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	No information available.				No information available.
Hazard Class:					
UN Number:					
Packing Group:					

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 87-66-1 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 87-66-1: acute, chronic.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 87-66-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations**European Labeling in Accordance with EC Directives****Hazard Symbols:**

XN

Risk Phrases:

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 68 Possible risk of irreversible effects.

Safety Phrases:

S 36/37 Wear suitable protective clothing and gloves.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 87-66-1: 2

Canada - DSL/NDSL

CAS# 87-66-1 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D2B.

Canadian Ingredient Disclosure List

CAS# 87-66-1 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits**Section 16 - Additional Information**

MSDS Creation Date: 5/12/1999

Revision #4 Date: 12/03/2002

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.